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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,804	12/08/2000	Shigeo Haruki	10873.619US01	2959

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EXAMINER

GEMMELL, ELIZABETH M

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 12/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,804

Applicant(s)

HARUKI ET AL.

Examiner

Beth Gemmell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 2,3,5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. (US Patent 5,701,054).

Park et al. discloses a plasma display panel comprising plural kinds of phosphor layers emitting different colors of fluorescent light (column 1, lines 33+), at least one kind of the phosphor layer being formed of a mixed phosphors obtained by mixing a phosphor having a surface potential with a negative polarity (InBO_3 or Zn_2SiO_4) and phosphors having a surface potential with a positive polarity (column 4, lines 41+; ZnS:Cu,Al or ZnS:Cu,Au,Al).

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Teruo (JP 11086735A).

Teruo discloses, in figure 4 and in the abstract, a plasma display panel comprising: a pair of substrates (11 and 21) positioned opposing each other with a discharge space provided therebetween (30) where at least the front substrate is transparent (1), a separation wall disposed on at least one substrate so as to divide the discharge space into several parts (29), a group of electrodes arranged on the substrate

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so that the discharge is performed in the discharge spaces divided by the separation walls, and phosphor layers emitting light by the discharge (G,B,R), wherein the phosphor layers include plural kinds of phosphor layers emitting different colors of fluorescent light, at least one kind of the phosphor layer being formed by using a mixed phosphor obtained by mixing a phosphor having a surface potential with a negative polarity (line 9) and a phosphor having a surface potential with a positive polarity (line 15).

Double Patenting

Applicant is advised that should claims 2 and 3 be found allowable, claims 5 and 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Allowable Subject Matter

Claims 2,3,5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record to Park et al. (US Patent 5,701,054), Teruo (JP 11086735A), Miyake et al. (US Patent 5,136,207), Rao (US Patent 6,004,481), Masuko et al. (US Patent 6,051,368) and Ohara et al. (US Patent 6,168,892), teach a conventional plasma display phosphor, however they fail to teach or fairly suggest the use, in combination, of $\text{Zn}_2\text{SiO}_4:\text{Mn}$ as the phosphor with the negative polarity and a terbium activated rare earth borate green phosphor as the phosphor having a positive polarity.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art all teach the use of both $\text{Zn}_2\text{SiO}_4:\text{Mn}$ and a terbium activated rare earth borate phosphor as the green phosphor within a plasma display panel, however they fail to teach the use of both phosphors in combination to form a single phosphor layer:

- US Patent 5,136,207
- US Patent 6,004,481
- US Patent 6,051,368
- US Patent 6,168,892


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

emg
December 18, 2002


ROBERT H. KIM
SUPERVISOR
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